

SHARING AND TRANSFORMING OUR WAY OF UNDERSTANDING THE WORLD

Professor Caroline Baillie (caroline.baillie@uwa.edu.au)

Chair of Engineering Education The University of Western Australia, Crawley WA 6009, Australia

KEYWORDS: engineering, intercultural competencies,

ABSTRACT

A Critical Theory of Technological Development (ENSC2601), is a broadening elective offered to all undergraduate students at UWA. Engineering, science, arts and humanities students together *critique* the past and present of engineering practice, and consider *sustainable and just alternatives* for the future. In 2015 UWA was approached by The Noongar Institute of WA (NIWA) for assistance in developing its teaching and learning resources for **DIDARA WALGINER BURA MOGANG GUDJIR BALJARRA NIWA Centre for Excellence in Science and Technology**. NIWA is an inclusive centre for community advancement promoting Noongar excellence, leadership and innovation of the Noongar Nation. *Reconstruct* was thus launched as a program of community service, through which UWA students work with local NIWA members, to understand Noongar culture, to share ideas about science and to develop new ways of thinking about engineering. It is an incredible opportunity for UWA students of many different disciplines to develop intercultural competencies and gain invaluable experience in working with complex, critical local issues but which also have global relevance and significance for their future careers. The first year of the program demonstrated the hugely transformational impact that this program can have on both students and community. I have been a University teacher and educational developer for over 20 years and in three continents, yet this was my most profound teaching experience. I hope to share with you some thoughts on why this might be.

I found this incredibly beneficial. Its shaken the foundation of my belief system and I think the after shocks (questioning what I thought I knew) will reverberate through me for a long time after this unit finished (ENSC2601 student 2015)

This morning I believed in hope once again. It was a gift I will treasure for myself. Thank you. The Community was thrilled and proud. I only wish I could show them how wonderful they (the students) all were.. they spoke with depth and genuine care about the project (the future of our world is in good hands (NIWA volunteer)

Proceedings of the Australian Conference on Science and Mathematics Education, Curtin University, Sept 30th to Oct 1st, 2015, page 1, ISBN Number 978-0-9871834-4-6.